

IN THE CLAIMS:

Please amend the claims as follows:

1. (currently amended) A method for stabilizing an image plane in medical imaging, the method comprising:

(a) tracking motion within a region inside a patient, the tracking being with scan data representing the region inside the patient;

(b) automatically altering an acquisition scan plane position relative to a transducer as a function of the motion, the acquisition scan plane position being for acquiring subsequent scan data with a same scanner used for tracking the motion; and

generating an image with the subsequent scan data;

wherein (a) comprises tracking the motion within the region, the region being a three-dimensional volume, and wherein (b) comprises altering the acquisition scan plane position, relative to the transducer, at a region of interest within the three-dimensional volume over time, wherein the transducer comprises a multi-dimensional array of elements;

wherein (b) comprises adaptively altering the acquisition scan plane position in response to the motion, maintaining the acquisition scan plane position at the region of interest over time;
further comprising:

(c) subsequently scanning at the adaptively altered acquisition scan plane position;

and

(d) generating the image as two-dimensional images responsive to (c).

2. (original) The method of Claim 1 wherein (a) comprises performing one of a cross-correlation and a sum of absolute differences.

3. (original) The method of Claim 1 wherein (a) comprises comparing data from a first acquisition with data from a second acquisition.

4. (original) The method of Claim 1 wherein (b) comprises translating and rotating an acquisition scan plane to the acquisition scan plane position.
5. (currently amended) The method of Claim 1 further comprising:
- (c) scanning the region with ultrasound energy;
 - (d) receiving input designating a region of interest within the region;
- ~~wherein (b) comprises maintaining the acquisition scan plane position at the region of interest over time.~~
6. (cancelled)
7. (currently amended) The method of Claim [[6]] 1 further comprising:
- [[c)]] electronically steering acoustic energy across the acquisition scan plane;
- wherein (a), (b) and [[c)]] the electronically steering are repeated.
8. (currently amended) The method of Claim [[6]] 1 wherein (a) comprises transmitting acoustic energy to at least three sub-regions of the three-dimensional volume without acquiring data for the entire three-dimensional volume.
9. (original) The method of Claim 8 further comprising:
- (c) scanning a representative sample of the entire three-dimensional volume;
- wherein (a) comprises comparing data responsive to the acoustic energy transmitted to the at least three sub-regions with data responsive to the representative sample.
10. (original) The method of Claim 8 wherein (a) comprises:
- (a1) transmitting at least three grouped sets of beams spaced apart within the three-dimensional volume;
 - (a2) determining a direction and a magnitude of motion from data responsive to the at least three grouped sets of beams for each of the at least three grouped sets of beams;

wherein (b) comprises altering the acquisition scan plane position as a function of the at least three directions and at least three magnitudes.

11. (cancelled)

12. (currently amended) The method of Claim 1 further comprising:

(e) shifting the two-dimensional images as a function of an initial position of the region of interest.

13. (original) The method of Claim 1 further comprising:

(c) identifying at least one feature within the region;
wherein (a) comprises tracking motion of the at least one feature.

14. (original) The method of Claim 1 wherein (a) comprises tracking one of speckle and a spatial gradient.

15. (original) The method of Claim 1 further comprising:

(c) adjusting a tracking parameter for (a) as a function of a position of a tracking location within the region.

16-22. (cancelled)

23. (original) The method of Claim 1 further comprising:

(c) obtaining data for motion tracking in response to different acquisition parameters than used for imaging.

24. (original) The method of Claim 1 wherein (b) comprises automatically altering an acquisition volume position relative to a transducer as a function of the motion.

25. (previously presented) The method of Claim 1 wherein (a) comprises tracking, with a processor, the motion from data representing at least a portion of the region acquired at different times.